

Bogazici University Kandilli Earthquake Seismic Grid Data Server

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Describe the scientific/technical community and the scientific/technical activity using (planning to use) the EGEE infrastructure. A high-level description is needed (neither a detailed specialist report nor a list of references).

Researchers that use earthquake seismic data.

Report on the experience (or the proposed activity). It would be very important to mention key services which are essential for the success of your activity on the EGEE infrastructure.

Hourly earthquake seismic data in SAC file format is mirrored on the grid automatically from about one hundred stations. Data is stored on storage elements in files and made available through the File Catalog Service. Therefore, tools that will enable easy access to these files becomes important. Since several applications may be using these files, file caching also becomes quite important.

With a forward look to future evolution, discuss the issues you have encountered (or that you expect) in using the EGEE infrastructure. Wherever possible, point out the experience limitations (both in terms of existing services or missing functionality)

MPI currently works on a single cluster on a grid. It will be nice if we could combine and use several grid nodes/cluster in an MPI program.

Describe the added value of the Grid for the scientific/technical activity you (plan to) do on the Grid. This should include the scale of the activity and of the potential user community and the relevance for other scientific or business applications

Massive time-series earthquake seismic data is generated from several stations all over Turkey. A researcher that wants to use this data, need to download data from a web server and use his own computer to process it. Grid provides both the data as well as the computational power to process this data. Grid also makes it possible perform performance optimizations such as file caching.

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